Utah Department of Health & Human Services

Utah communicable disease report, 2021

Contents

Utah Department of Health & Human Services

1 Introduction

The **Utah communicable disease report 2021** is a web-based report; this is the PDF version and lacks some features of the web-based report, but all critical information is retained. You can navigate through the different chapters by using the table of contents at the top of the document.

1.1 Acknowledgements

The Utah Department of Health and Human Services (DHHS) recognizes the efforts of local health department (LHD) personnel throughout the state who play a critical role in data collection and case investigation; their work allows for accurate and timely reporting of communicable disease data.

The DHHS also recognizes the efforts of other reporting partners, including laboratories, healthcare facilities, healthcare providers, and the public, in the provision of communicable disease data that have contributed to this report.

Reportable communicable disease data for Utah are published by the Utah Department of Health and Human Services Office of Communicable Diseases.

Please direct questions or comments to:

DHSS Office of Communicable Diseases
PO Box 142104
Salt Lake City, Utah 84114
Phone: (801) 538-6191
Email: epi@utah.gov
Website: www.health.utah.gov/epi

1.2 Preface

The *Communicable disease annual report for Utah, 2021* contains data related to Utah's reportable diseases and conditions reported in Utah for 2021. The data reported are collected from Utah's local health departments (LHDs), laboratories, healthcare providers, hospitals, and other healthcare facilities. The Utah Department of Health and Human Services(DHSS) tracks more than 75 communicable diseases in Utah annually. Each case of disease is investigated in collaboration with the LHDs.

The Highlights section presents noteworthy epidemiologic information from 2021 for selected diseases and additional information to aid in the interpretation of surveillance data. Incidence data (new cases of reportable conditions in 2021), historical 5-year averages, and the incidence rates are presented in [State Disease Activity] table. In addition, a summary of cases of reportable disease by

LHD is presented in the [Jurisdiction Disease Activity] section, and historical case counts and rates are presented in Yearly Disease Comparison section. Cases are counted by the year the disease occurred as determined by the *Morbidity and Mortality Weekly Report (MMWR)* week assigned by the Centers for Disease Control and Prevention (CDC).

1.3 Important note about influenza

Throughout this report, influenza data are presented in the year the influenza season **ended**, and represent data for the CDC defined influenza season. Influenza season typically begins in October and surveillance extends through May of the following year. For example, data presented for the year 2021 is indicative of data collected from the 2020–2021 influenza season. This type of presentation provides accurate measures for annual influenza activity. Sporadic cases of influenza that occur outside of the traditional influenza season are assigned to the previous season (i.e., an influenza case reported in August of 2021 would be assigned to the 2019–2020 influenza season). This report reflects activity for the 2020–2021 influenza season. More information on influenza activity in Utah can be found here.

1.4 Background

A multidisciplinary approach to communicable disease control has been established in Utah and includes prompt reporting, data analysis, data interpretation, case investigation, identification of common risk factors, treatment, and implementation of disease prevention interventions. The successes of medicine and public health have dramatically reduced the risk of illnesses, hospitalizations, and deaths due to infectious agents during the 20th century. However, emergence of new diseases and the rapid spread of diseases globally, made possible by advances in transportation, trade, food production, and other factors, highlight the continual threat to health from infectious diseases. Attention to these threats and cooperation among all healthcare providers, government agencies, and other entities that are partners in protecting the public's health are crucial to maintain and improve the health of Utah's citizens. [1]

The important role that disease surveillance plays in protecting the public's health has been expressed by the CDC as follows:

> "Case-reporting of reportable diseases at the local level protects the public's health by ensuring the proper identification and follow-up of

[1] Utah Division of Administrative Rules. Utah Administrative Code Rule R386-702, Communicable Disease Rule. Available at: https://rules.utah.gov/publicat/code/r386/r386-702.htm

cases. Public health workers ensure that persons who are already ill receive appropriate treatment; trace contacts who need vaccines, treatment, quarantine, or education; investigate and halt outbreaks; eliminate environmental hazards; and close premises where spread may occur. Surveillance of notifiable conditions helps public health authorities monitor the effect of notifiable conditions, measure disease trends, assess the effectiveness of control and prevention measures, identify populations or geographic areas at high risk, allocate resources appropriately, formulate prevention strategies, and develop public health policies. Monitoring surveillance data enables public health authorities to detect sudden changes in disease occurrence and distribution, identify changes in agents and host factors, and detect changes in health-care practices." [2]

Reportable communicable diseases in Utah, 2021 [3]

Acinetobacter species with resistance to carbapenems

Acute flaccid myelitis

Acquired immunodeficiency syndrome (AIDS)

Adverse event resulting from smallpox vaccination

Anaplasmosis

Anthrax

Arbovirus infection, including Saint Louis encephalitis and West Nile virus

Babesiosis

Botulism

Botulism, infant

Brucellosis

Campylobacteriosis

Chancroid

Chickenpox

[2]Centers for Disease and Prevention (2014). Summary of Notifi able Diseases–United States, 2012. Morbidity and Mortality Weekly Report (MMWR), 61(53). Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6153a1.htm

[3]Disease reporting is mandated by state legislation and administrative code. This list reflects the diseases, illnesses, and conditions to be of concern to the public health and reportable as specified in the Utah Administrative Code Rule R386-702, and required or authorized by Section 26-6-6 and Title 26, Chapter 23b of the Utah Health Code for the year 2021. The list of reportable diseases and conditions in Utah is revised periodically. A disease may be added to the list as a new public health threat emerges, or a disease may be removed as its incidence declines.

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Chlamydia trachomatis infection

Cholera

Coccidioidomycosis

Colorado tick fever

COVID-19

Creutzfeldt-Jacob disease and other transmissible human spongiform encephalopathies

Cryptosporidiosis

Cyclosporiasis

Dengue fever

Diphtheria

Ehrlichiosis, human granulocytic, human monocytic, or unspecified

Encephalitis

Enterobacter species with resistance or intermediate resistance to carbapenems

Escherichia coli with resistance or intermediate resistance to carbapenems

Giardiasis

Gonorrhea

Haemophilus influenzae, invasive disease

Hansen's disease (Leprosy)

Hantavirus pulmonary syndrome

Hemolytic uremic syndrome, post-diarrheal

Hepatitis A

Hepatitis B, cases and carriers

Hepatitis C, acute and chronic

Hepatitis, other viral

Human immunodeficiency virus (HIV) infection

Influenza-associated hospitalization

Influenza-associated pediatric death

Klebsiella species with resistance or intermediate resistance to carbapenems

Legionellosis

Listeriosis

Lyme disease

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Malaria

Measles

Meningitis (aseptic, bacterial, fungal, parasitic, protozoan, and viral)

Meningococcal disease

Mumps

Mycobacteria other than tuberculosis

Norovirus

Pertussis (whooping cough)

Plague

Poliomyelitis, paralytic

Poliovirus infection, nonparalytic

Pregnancy associated with hepatitis B, hepatitis C, HIV, Listeria, rubella, syphilis, or Zika virus infection

Psittacosis

Q fever

Rabies, human and animal

Relapsing fever, tick-borne and louse-borne

Rubella

Rubella, congenital syndrome

Salmonellosis

Severe acute respiratory syndrome (SARS)

Shiga toxin-producing Escherichia coli (STEC) infection

Shigellosis

Smallpox

Spotted fever rickettsioses, including Rocky Mountain spotted fever

Staphylococcus aureus with resistance (VRSA)

Streptococcal disease, invasive, including: Streptococcus pneumoniae and groups A, B, C, and G
streptococci isolated from a normally sterile site

Syphilis, all stages and congenital

Tetanus

Toxic-shock syndrome, staphylococcal or streptococcal

Trichinellosis

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Tuberculosis

Tularemia

Typhoid, cases and carriers

Vibriosis

Viral hemorrhagic fevers, including Ebola, Lassa, Marburg, and Nipah virus-related illnesses

Yellow fever

Zika virus

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2 Highlights

The following are summaries for selected communicable diseases highlighting conditions that had notable incidence, outbreaks, or other factors.

2.1 COVID-19

COVID-19, an acute respiratory disease, continues to be the overwhelming disease facing public health in 2021. In 2021, there were 380,651 cases of Covid-19 in Utah compared to 300,220 cases un 2020. The virus is transmitted person-to-person by both symptomatic and asymptomatic persons who exhale droplets and particles that contain the SARS-COV-2 virus. COVID-19 was declared a global pandemic on March 11, 2020. Utah saw its first cases in March of 2020. Due to under-reporting, early scarcity in testing availability, and asymptomatic people who were not tested, the true burden of COVID-19 cases is likely above the reported numbers. COVID-19 precautions like social distancing, isolation, quarantine, and changes in healthcare-seeking behaviors during the pandemic likely impacted the reporting of other communicable diseases in Utah. While this report provides a high-level summary of reported cases, more in-depth COVID-19 data can be found on the Utah COVID-19 dashboard.

2.2 Salmonella

The Utah Department of Health and Human Services (DHHS) and Central Utah Public Health Department (CUPHD) investigated a large outbreak of salmonellosis associated with food from a pop up vendor sold during a community celebration. Cases occurred between July 24th, 2021 and August 2nd, 2021. There were 87 illness complaints, and of those 14 individuals tested positive for salmonellosis. CUPHD worked with the vendor to determine that improper handling of chicken was the most likely cause of the illnesses.

2.3 Influenza

The 2020-2021 flu season was unique in that the state of Utah (along with other U.S. states and territories) experienced very little laboratory-confirmed influenza. The 5-year season average of positive influenza labs reported to the UDHHS prior to the 2020–2021 season was 6,657 labs. From October 2020 through September 2021, only 85 total influenza labs were reported. For laboratory-confirmed influenza-associated hospitalization (IAH), the season average was 1,610, but only 20 hospitalizations were reported during the 2020–2021 season. Typically, surveillance for influenza is active from MMWR week 40 through MMWR week 20.

However, the 2020–2021 season was also unique in that the state saw extended influenza and influenza-like illness (ILI) through the summer and into the fall of 2021. Therefore, surveillance activities were extended, and totals reported in this report for the 2020–2021 influenza "season" are from week 40 (October 2020) through week 39 (September 2021). Utah experienced less ILI through the winter than expected, with the percent of outpatient visits due to ILI remaining below 1.1% through June. In June, ILI began increasing and peaked in week 39, at 2.1%. Some of this summer increase was likely due to other respiratory viruses with overlapping clinical presentations, such as RSV and SARS-CoV-2.

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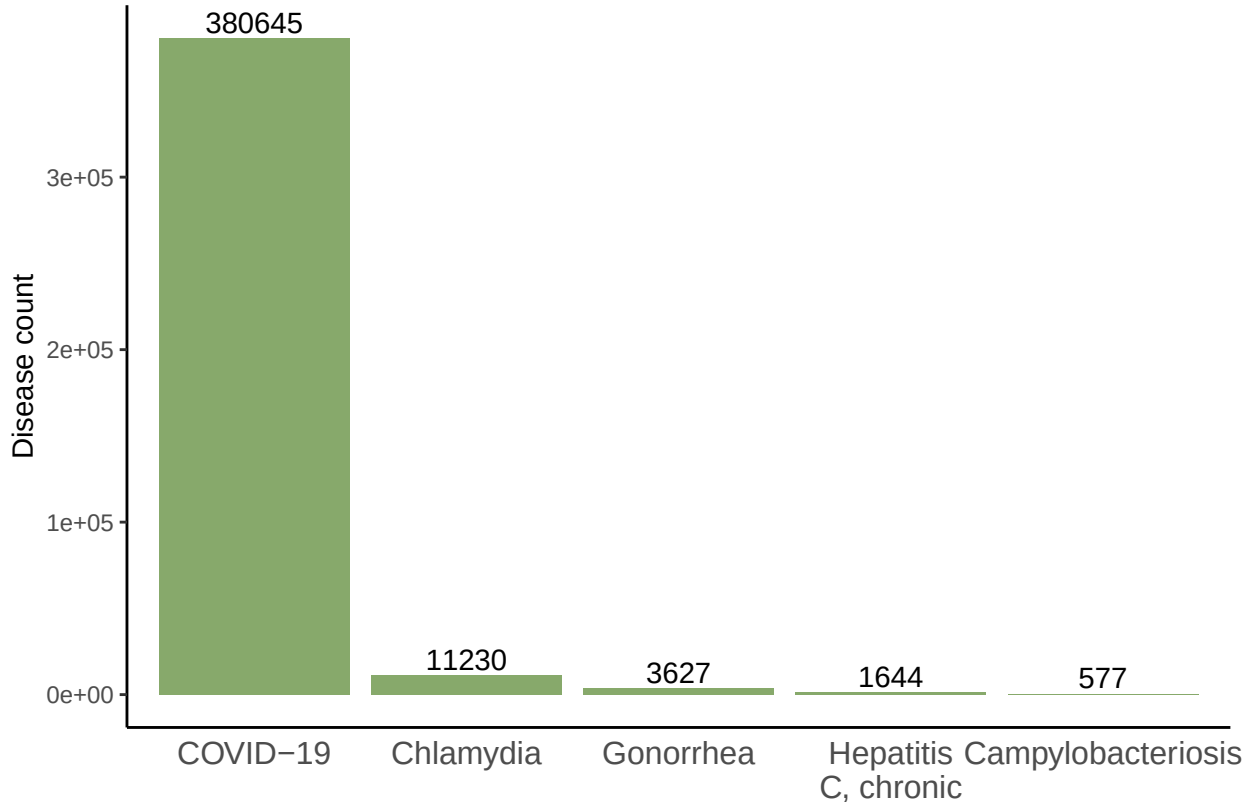
3 Overall state disease activity

3.1 Top diseases of 2021

The top five highest disease counts in the state of Utah were:

1. **COVID-19** with **380,645** cases.
2. **Chlamydia** with **11,230** cases.
3. **Gonorrhea** with **3,627** cases.
4. **Hepatitis C, chronic** with **1,644** cases.
5. **Campylobacteriosis** with **577** cases.



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3.2 2021 State disease table

The State disease table includes the 2021 Count[4], Previous 5-Year Count Average[5], Utah 2021 Rate[6], and the Disease Trend[7].

Disease	2021 count	Previous 5 year count average	Utah 2021 rate	Trend
Acinetobacter species resistant to carbapenems	40	16.8	1.2	Consistent
Acute flaccid myelitis	0	1.4	0	Consistent
Adverse event resulting from smallpox vaccination	0	0.2	0	Consistent
Anthrax	0	0	0	Not enough information
Arbovirus infection (not including West Nile, Dengue, or Yellow fever)	0	1	0	Consistent
Babesiosis	0	1	0	Consistent
Botulism, total	4	3.3	*0.1*	Consistent
Botulism, foodborne	0	0.4	0	Consistent
Botulism, infant	4	3.6	*0.1*	Consistent
Botulism, other (wound/unspecified)	0	0.2	0	Consistent
Brucellosis	0	0.6	0	Consistent
Campylobacteriosis	577	531.4	*17.6*	Consistent
Chagas disease	1	1	0	Consiistent
Chancroid	0	0	0	Consistent
Chickenpox	74	186.4	*2.3*	Consistent
Chlamydia	11,230	10,342.4	341.9	Consistent
Cholera	0	0	0	Not enough information
Coccidioidomycosis	58	54.6	1.8	Consistent
Colorado tick fever	1	0.6	0	Consistent

[4]Count is the total disease count in 2021. For influenza, count is the total disease count in the 2020–2021 influenza season

[5]The average disease counts for the 5 years prior to 2021

[6]The rate indicates infections per 100,000 population. Caution should be used when interpreting rates in italics; the estimate has a relative standard error greater than 30% and does not meet DHSS standards for reliability.

[7]Changes in trend are based on statistical significance (using a p-value of 0.10), i.e., higher or lower than the five-year average.

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(continued)

Disease	2021 Count	Previous 5 Year Count Average	Utah 2021 Rate	Trend
COVID-19	380,651	***	11,588.2	Increasing
Creutzfeldt-Jakob disease and other transmissible human spongiform encephalopathies	3	4.8	*0.1*	Consistent
Cryptosporidiosis	138	163.2	*4.2*	Consistent
Cyclosporiasis	24	14.2	0.7	Consistent
Dengue	2	6.4	*0.1*	Consistent
Diphtheria	0	0.2	0	Not enough information
Ehrlichiosis/anaplasmosis	0	0.6	0	Consistent
Encephalitis	1	6.8	0	Decreasing
Enterobacter species resistant to carbapenems	3	0.8	*0.1* 0	Increasing
Escherichia coli resistant to carbapenems	3	3.2	*0.1*	Consistent
Giardiasis	214	191.8	*6.5*	Consistent
Gonorrhea	3,627	2,702.4	110.4	Consistent
HIV infection	135	129	*4.1*	Consistent
Haemophilus influenzae, all ages, invasive disease	37	50.2	1.1	Decreasing
nonserotype B, age <5 years	8	9.2	*0.2*	Consistent
serotype B, age <5 years	0	0.4	0	Consistent
unknown serotype, age <5 years	1	0.8	0	Consistent
Hansen's disease (Leprosy)	2	0.8	*0.1*	Consistent
Hantavirus infection	0	1.8	0	Consistent
Hemolytic uremic syndrome, post-diarrheal	10	8.8	0.2	Consistent
Hepatitis A	13	67.8	*0.4*	Consistent
Hepatitis B, acute	21	20.6	0.6	consistent
Hepatitis B, chronic	232	227.4	*7.1*	Consistent
Hepatitis C, acute	224	130.2	6.8	Increasing
Hepatitis C, chronic	1,658	1,461.6	50.4	Consistent
Hepatitis, other viral	2	1	*0.1*	Consistent

Utah Department of Health & Human Services

(continued)

Disease	2021 Count	Previous 5 Year Count Average	Utah 2021 Rate	Trend
Influenza-associated hospitalization	24	1,611.4	0.7	Decreasing
Influenza-associated pediatric mortality	0	0	0	Not enough information
Klebsiella species resistant to carbapenems	11	5.6	*0.3*	Increasing
Legionellosis	39	33.2	1.2	Consistent
Leptospirosis	1	2	0	Consistent
Listeriosis	2	4.2	*0.1*	Consistent
Lyme disease	18	21.4	0.5	Consistent
Malaria	3	10.8	*0.1*	Consistent
Measles	0	0.6	0	Consistent
Meningitis, aseptic	0	56.6	0	Consistent
Meningitis, bacterial, other	11	31	0.3	Consistent
Meningitis, viral	24	67	*0.7*	Consistent
Meningococcal disease (Neisseria meningitidis)	1	2.4	0	Consistent
Mumps	3	16.8	0.1	Consistent
Pertussis	133	342.8	*4*	Consistent
Plague	0	0	0	Consistent
Poliomyelitis, paralytic and nonparalytic	0	0	0	Not enough information
Psittacosis	0	0.2	0	Consistent
Q fever	7	3	*0.2*	Increasing
Rabies, animal	19	15	*0.6*	Consistent
Rabies, human	0	0.2	0	Consistent
Relapsing fever, tick-borne and louse-borne	0	0.8	0	Consistent
Rubella	0	0	0	Consistent
Rubella, congenital syndrome	0	0	0	Not enough information
Salmonellosis	325	352	9.9	Consistent
Severe acute respiratory syndrome (SARS)	0	0	0	Not enough information
Shiga toxin-producing Escherichia coli (STEC) infection	216	158.4	6.6	Consistent

Utah Department of Health & Human Services

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Disease	2021 Count	Previous 5 Year Count Average	Utah 2021 Rate	Trend
Shigellosis	59	60.6	1.8	Consistent
Smallpox	0	0	0	Not enough information
Spotted fever rickettsiosis (including Rocky Mountain spotted fever)	0	6.8	0	Consistent
Streptococcal disease, invasive, group A	192	223	*5.8*	Consistent
Streptococcal disease, invasive, group B	269	238.4	*8.2*	Consistent
Streptococcal disease, invasive, other	443	396.4	*13.5*	Consistent
Streptococcus pneumoniae, invasive disease	196	228.8	6	Decreasing
age <5 years	14	18.4	0.4	Consistent
Syphilis, congenital	2	1.2	*0.1*	Consistent
Syphilis, early (infection < 12 months)	207	129.8	6.3	Increasing
primary and secondary	207	129.8	6.3	Increasing
early latent	0	0	0	Not enough information
Syphilis, latent (infection > 12 months)	0	69.8	*0*	Consistent
Tetanus	0	0	0	Not enough information
Toxic shock syndrome (staphylococcal or streptococcal)	23	30.8	0.7	Consistent
Trichinellosis	0	0	0	Consistent
Tuberculosis, active	17	24.8	0.5	Consistent
Tularemia	3	2.6	*0.1*	Consistent
Typhoid fever	4	2	*0.1*	Consistent
Vancomycin-resistant staphylococcus aureus (VRSA)	0	0	0	Not enough information
Vibriosis	27	14.4	0.8	Increasing
Viral hemorrhagic fevers	0	0	0	Not enough information

Utah Department of Health & Human Services

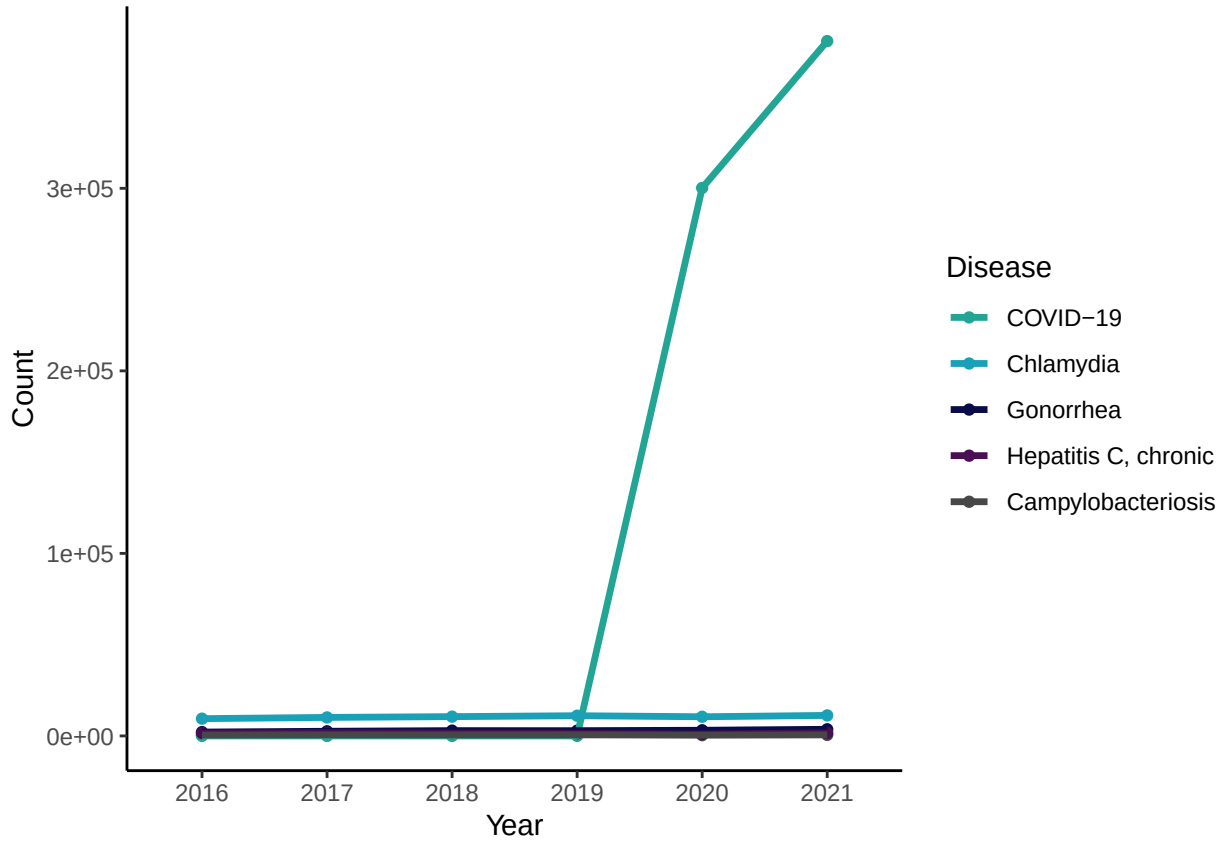
(continued)

Disease	2021 Count	Previous 5 Year Count Average	Utah 2021 Rate	Trend
West Nile virus, total	28	21.8	*0.9*	Consistent
Yellow fever	0	0	0	Not enough information
Zika virus, congenital infection	0	0	0	Not enough information
Zika virus disease	2	12	*0.1*	Consistent

Utah Department of Health & Human Services

4 Yearly disease comparison

4.1 Top 5 disease trends by count



4.2 Yearly disease counts [8]

Disease	2016	2017	2018	2019	2020	2021
Acinetobacter species resistant to carbapenems	4	2	26	32	20	40
Acute flaccid myelitis	3	2	1	1	0	0
Adverse event resulting from smallpox vaccination	0	1	0	0	0	0
Anthrax	0	0	0	0	0	0
Arbovirus infection (not including West Nile, Dengue, or Yellow fever)	0	0	0	1	0	0

[8]Note about hepatitis B and hepatitis C: From 2014–2016, only confirmed cases were reported; in 2018–2021 confirmed and probable cases were reported.

Utah Department of Health & Human Services

(continued)

Disease	2016	2017	2018	2019	2020	2021
Babesiosis	3	1	1	0	0	0
Botulism, total	6	1	3	5	3	4
Botulism, foodborne	0	0	1	1	0	0
Botulism, infant	5	1	2	4	3	4
Botulism, other (wound/unspecified)	1	0	0	0	0	0
Brucellosis	0	0	0	2	1	0
Campylobacteriosis	504	597	562	582	412	577
Chagas disease	0	0	0	2	3	1
Chancroid	0	0	0	0	0	0
Chickenpox	229	253	196	165	89	74
Chlamydia	9,459	10,135	10,558	11,071	10,489	11230
Cholera	0	0	0	0	0	0
Coccidioidomycosis	42	80	54	51	47	58
Colorado tick fever	1	0	1	1	0	1
COVID-19	0	1	2	8	300,330	380,651
Creutzfeldt-Jakob disease and other transmissible human spongiform encephalopathies	2	7	5	3	7	3
Cryptosporidiosis	170	125	197	198	126	138
Cyclosporiasis	2	14	21	22	12	24
Dengue	7	6	6	10	3	2
Diphtheria	0	0	0	0	1	0
Ehrlichiosis/anaplasmosis	0	2	1	0	0	0
Encephalitis	8	8	6	9	3	1
Enterobacter species resistant to carbapenems	2	0	1	0	1	3
Escherichia coli resistant to carbapenems	0	1	6	6	3	3
Giardiasis	161	215	233	196	154	214
Gonorrhea	2,100	2,541	2,895	2,872	3,104	3627
HIV infection	138	118	120	134	135	135
Haemophilus influenzae, all ages, invasive disease	40	64	56	55	36	37
nonserotype B, age <5 years	8	10	8	15	5	8
serotype B, age <5 years	1	0	0	0	1	0
unknown serotype, age <5 years	0	1	1	1	1	1
Hansen's disease (Leprosy)	0	1	2	1	0	2

Utah Department of Health & Human Services

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Disease	2016	2017	2018	2019	2020	2021
Hantavirus infection	3	3	1	1	1	0
Hemolytic uremic syndrome, post-diarrheal	6	12	12	8	6	10
Hepatitis A	12	160	135	20	12	13
Hepatitis B, acute	5	19	36	32	11	21
Hepatitis B, chronic	74	299	303	268	193	232
Hepatitis C, acute	81	101	155	165	149	224
Hepatitis C, chronic	1,518	1,780	1,538	1,415	1,057	1658
Hepatitis, other viral	0	1	3	0	1	2
Influenza-associated hospitalization	1,237	1,490	2,205	1804	1,310	24
Influenza-associated pediatric mortality	2	1	0	1	6	0
Klebsiella species resistant to carbapenems	5	7	4	6	6	11
Legionellosis	30	31	34	39	32	39
Leptospirosis	1	1	2	3	3	1
Listeriosis	4	6	2	2	7	2
Lyme disease	19	26	28	20	14	18
Malaria	21	9	10	10	4	3
Measles	0	3	0	0	0	0
Meningitis, aseptic	49	96	90	48	0	0
Meningitis, bacterial, other	12	39	43	40	21	11
Meningitis, viral	77	95	78	78	9	24
Meningococcal disease (Neisseria meningitidis)	3	2	3	3	1	1
Mumps	2	40	13	26	3	3
Pertussis	268	448	435	405	158	133
Plague	0	0	0	0	0	0
Poliomyelitis, paralytic and nonparalytic	0	0	0	0	0	0
Psittacosis	0	1	0	0	0	0
Q fever	2	2	5	1	5	7
Rabies, animal	18	23	14	12	8	19
Rabies, human	0	0	1	0	0	0
Relapsing fever, tick-borne and louse-borne	0	3	0	1	0	0
Rubella	0	0	0	0	0	0
Rubella, congenital syndrome	0	0	0	0	0	0
Salmonellosis	332	388	364	325	351	325

Utah Department of Health & Human Services

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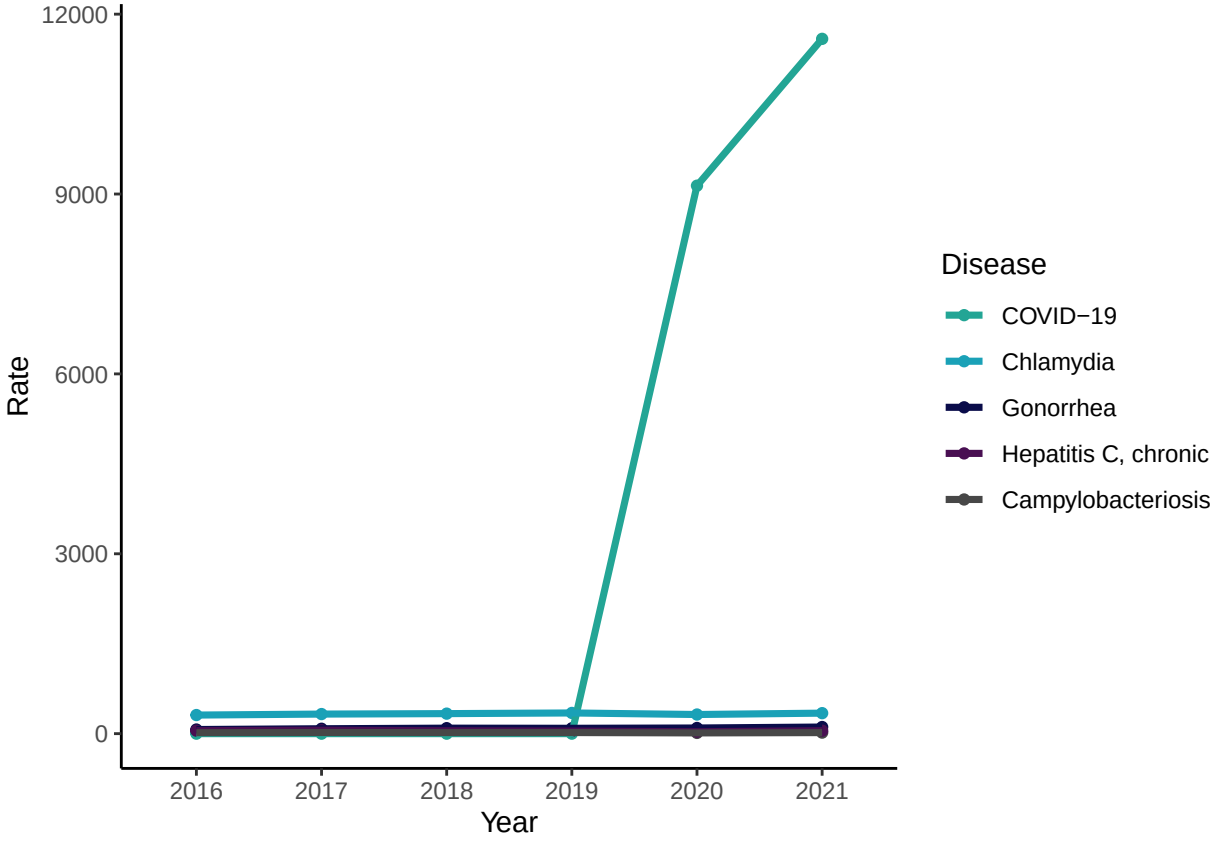
Disease	2016	2017	2018	2019	2020	2021
Severe acute respiratory syndrome (SARS)	0	0	0	0	0	0
Shiga toxin-producing Escherichia coli (STEC) infection	78	140	197	185	192	216
Shigellosis	79	44	64	66	50	59
Smallpox	0	0	0	0	0	0
Spotted fever rickettsiosis (including Rocky Mountain spotted fever)	5	10	9	9	1	0
Streptococcal disease, invasive, group A	217	222	244	236	196	192
Streptococcal disease, invasive, group B	200	224	257	248	263	269
Streptococcal disease, invasive, other	421	432	319	384	426	443
Streptococcus pneumoniae, invasive disease	246	268	247	221	162	196
age <5 years	24	17	22	16	13	14
Syphilis, congenital	0	0	1	4	1	2
Syphilis, early (infection < 12 months)	93	117	168	138	133	207
primary & secondary	93	117	168	138	133	207
early latent	0	0	0	0	0	0
Syphilis, latent (infection > 12 months)	106	97	146	0	0	0
Tetanus	0	0	0	0	0	0
Toxic shock syndrome (staphylococcal or streptococcal)	34	31	34	26	29	24
Trichinellosis	0	0	0	0	0	0
Tuberculosis, active	20	29	18	27	30	17
Tularemia	5	7	0	0	1	3
Typhoid fever	1	0	2	7	0	4
Vancomycin-resistant Staphylococcus aureus (VRSA)	0	0	0	0	0	0
Vibriosis	11	16	16	21	8	27
Viral hemorrhagic fevers	0	0	0	0	0	0
West Nile virus, total	13	62	11	21	2	28
Yellow fever	0	0	0	0	0	0
Zika virus, congenital infection	0	0	0	0	0	0
Zika virus disease	29	9	11	9	2	0

Utah Department of Health & Human Services

4.3 Top 5 disease trends by rate per 100,000 people



4.4 Yearly disease rates per 100,000 people

Rates are defined as infections per 100,000 population. Caution should be used when interpreting rates listed in *italics*. The estimate has a relative standard error greater than 30% and does not meet the DHHS standards for reliability.

Note about hepatitis B and hepatitis C: From 2014–2016, only confirmed cases were reported; in 2018–2021 confirmed and probable cases were reported.

Disease	2016	2017	2018	2019	2020	2021
Acinetobacter species resistant to carbapenems	*0.1*	*0.1*	0.8	1	0.6	1.2
Acute flaccid myelitis	*0.1*	*0.1*	0	0	0	0
Adverse event resulting from smallpox vaccination	0	0	0	0	0	0
Anthrax	0	0	0	0	0	0

Utah Department of Health & Human Services

(continued)

Disease	2016	2017	2018	2019	2020	2021
Arbovirus infection (not including West Nile, Dengue, or Yellow fever)	*0.1*	0	0	0	0	0
Babesiosis	*0.1*	0	0	0	0	0
Botulism, total	*0.2*	0	*0.1*	*0.2*	*0.1*	*0.1*
Botulism, foodborne	0	0	0	0	0	0
Botulism, infant	*0.2*	0	*0.1*	*0.1*	*0.1*	*0.1*
Botulism, other (wound/unspecified)	0	0	0	0	0	0
Brucellosis	0	0	0	*0.1*	0	0
Campylobacteriosis	16.5	19.2	17.8	18.2	12.5	17.6
Chagas disease	0	0	0	*0.1*	*0.1*	0
Chancroid	0	0	0	0	0	0
Chickenpox	7.5	8.2	6.2	5.1	2.7	2.3
Chlamydia	310.2	326.7	334	345.3	319.3	341.9
Cholera	0	0	0	0	0	0
Coccidioidomycosis	1.4	2.6	1.7	1.6	1.4	1.8
Colorado tick fever	0	0	0	0	0	0
COVID-19	0	0	0	*0.2*	9,139.7	11588.2
Creutzfeldt-Jakob disease and other transmissible human spongiform encephalopathies	*0.1*	*0.2*	*0.2*	*0.1*	*0.2*	*0.1*
Cryptosporidiosis	5.6	4	6.2	6.2	3.8	4.8
Cyclosporiasis	*0.1*	*0.5*	*0.7*	0.7	0.4	0.7
Dengue	*0.2*	*0.2*	*0.2*	*0.3*	*0.1*	*0.1*
Diphtheria	0	0	0	0	0	0
Ehrlichiosis/anaplasmosis	0	*0.1*	0	0	0	0
Encephalitis	*0.3*	*0.3*	*0.2*	*0.3*	*0.1*	0
Enterobacter species resistant to carbapenems	*0.1*	0	0	0	0	*0.1*
Escherichia coli resistant to carbapenems	0	0	*0.2*	*0.2*	*0.1*	*0.1*
Giardiasis	5.3	6.9	7.4	6.1	4.7	6.5
Gonorrhea	52.1	81.9	91.6	89.6	94.5	110.4
HIV infection	4.5	3.8	3.8	4.2	4.1	4.1
Haemophilus influenzae, all ages, invasive disease	1.3	2.1	1.8	1.7	1.1	1.1
nonserotype B, age <5 years	*0.3*	*0.3*	*0.3*	*0.5*	*0.2*	*0.2*
serotype B, age <5 years	0	0	0	0	0	0
unknown serotype, age <5 years	0	0	0	0	0	0
Hansen's disease (Leprosy)	0	0	*0.1*	0	0	*0.1*
Hantavirus infection	*0.1*	*0.1*	0	0	0	0

Utah Department of Health & Human Services

(continued)

Disease	2016	2017	2018	2019	2020	2021
Hemolytic uremic syndrome, post-diarrheal	*0.4*	*0.4*	*0.2*	*0.2*	*0.3*	*0.2*
Hepatitis A	0.4	5.2	4.3	0.6	0.4	0.4
Hepatitis B, acute	*0.2*	0.6	1.1	1	*0.3*	0.6
Hepatitis B, chronic	2.4	9.6	9.6	8.4	5.9	7.1
Hepatitis C, acute	2.7	3.3	4.9	5.1	4.5	6.8
Hepatitis C, chronic	49.8	57.4	48.7	44.1	32.2	50.5
Hepatitis, other viral	0	0	*0.1*	0	0	*0.1*
Influenza-associated hospitalization	40.6	48	69.8	56.3	39.9	0.7
Influenza-associated pediatric mortality	*0.1*	0	0	0	0	0
Klebsiella species resistant to carbapenems	*0.2*	*0.2*	*0.1*	*0.2*	*0.2*	*0.3*
Legionellosis	1	1	1.1	1.2	1	1.2
Leptospirosis	0	0	*0.1*	*0.1*	*0.1*	0
Listeriosis	*0.1*	*0.2*	*0.1*	*0.1*	*0.2*	*0.1*
Lyme disease	0.6	0.8	0.9	0.6	0.4	0.5
Malaria	*0.7*	*0.3*	*0.3*	*0.3*	*0.1*	*0.1*
Measles	0	*0.1*	0	0	0	0
Meningitis, aseptic	1.6	3.1	2.8	1.5	0	0
Meningitis, bacterial, other	0.4	1.3	1.4	1.2	0.6	*0.3*
Meningitis, viral	2.5	3.1	2.5	2.4	*0.3*	0.7
Meningococcal disease (Neisseria meningitidis)	*0.1*	*0.1*	*0.1*	*0.1*	0	0
Mumps	*0.1*	1.3	0.4	0.8	*0.1*	*0.1*
Pertussis	8.8	14.4	13.8	12.6	4.8	4
Plague	0	0	0	0	0	0
Poliomyelitis, paralytic and nonparalytic	0	0	0	0	0	0
Psittacosis	0	0	0	0	0	0
Q fever	*0.1*	*0.1*	*0.2*	0	*0.2*	*0.2*
Rabies, animal	0.6	0.7	0.4	0.4	0.2	0.6
Rabies, human	0	0	0	0	0	0
Relapsing fever, tick-borne and louse-borne	0	0	*0.1*	0	0	0
Rubella	0	0	0	0	0	0
Rubella, congenital syndrome	0	0	0	0	0	0
Salmonellosis	10.9	12.5	11.5	10.1	10.7	9.9
Severe acute respiratory syndrome (SARS)	0	0	0	0	0	0

Utah Department of Health & Human Services

(continued)

Disease	2016	2017	2018	2019	2020	2021
Shiga toxin-producing Escherichia coli (STEC) infection	2.6	4.5	6.2	5.8	5.8	6.6
Shigellosis	2.6	1.4	2	2.1	1.5	1.8
Smallpox	0	0	0	0	0	0
Spotted fever rickettsiosis (including Rocky Mountain spotted fever)	*0.2*	*0.3*	*0.3*	*0.3*	0	0
Streptococcal disease, invasive, group A	7.1	7.2	7.7	7.4	6	5.8
Streptococcal disease, invasive, group B	6.6	7.2	8.1	7.7	8	8.2
Streptococcal disease, invasive, other	13.8	13.9	10.1	12	13	13.5
Streptococcus pneumoniae, invasive disease	8.1	8.6	7.8	6.9	4.9	6
age <5 years	0.8	0.5	0.7	0.5	0.4	0.4
Syphilis, congenital	0	0	0	*0.1*	0	*0.1*
Syphilis, early (infection < 12 months)	3	3.8	5.3	4.3	4	6.3
primary & secondary	3	3.8	5.3	4.3	4	6.3
early latent	0	0	0	0	0	0
Syphilis, latent (infection > 12 months)	3.5	3.1	4.6	0	0	0
Tetanus	0	0	0	0	0	0
Toxic shock syndrome (staphylococcal or streptococcal)	1.1	1	1.1	0.8	0.9	0.7
Trichinellosis	0	0	0	0	0	0
Tuberculosis, active	0.7	0.9	0.6	0.8	0.9	0.5
Tularemia	*0.2*	*0.2*	0	0	0	*0.1*
Typhoid fever	0	0	*0.1*	*0.2*	0	*0.1*
Vancomycin-resistant Staphylococcus aureus (VRSA)	0	0	0	0	0	0
Vibriosis	0.4	0.5	0.5	0.7	*0.2*	0.8
Viral hemorrhagic fevers	0	0	0	0	0	0
West Nile virus, total	0.4	2	*0.3*	0.7	*0.1*	0.9
Yellow fever	0	0	0	0	0	0
Zika virus, congenital infection	0	0	0	0	0	0
Zika virus disease	1	*0.3*	*0.3*	*0.3*	*0.1*	0

Utah Department of Health & Human Services

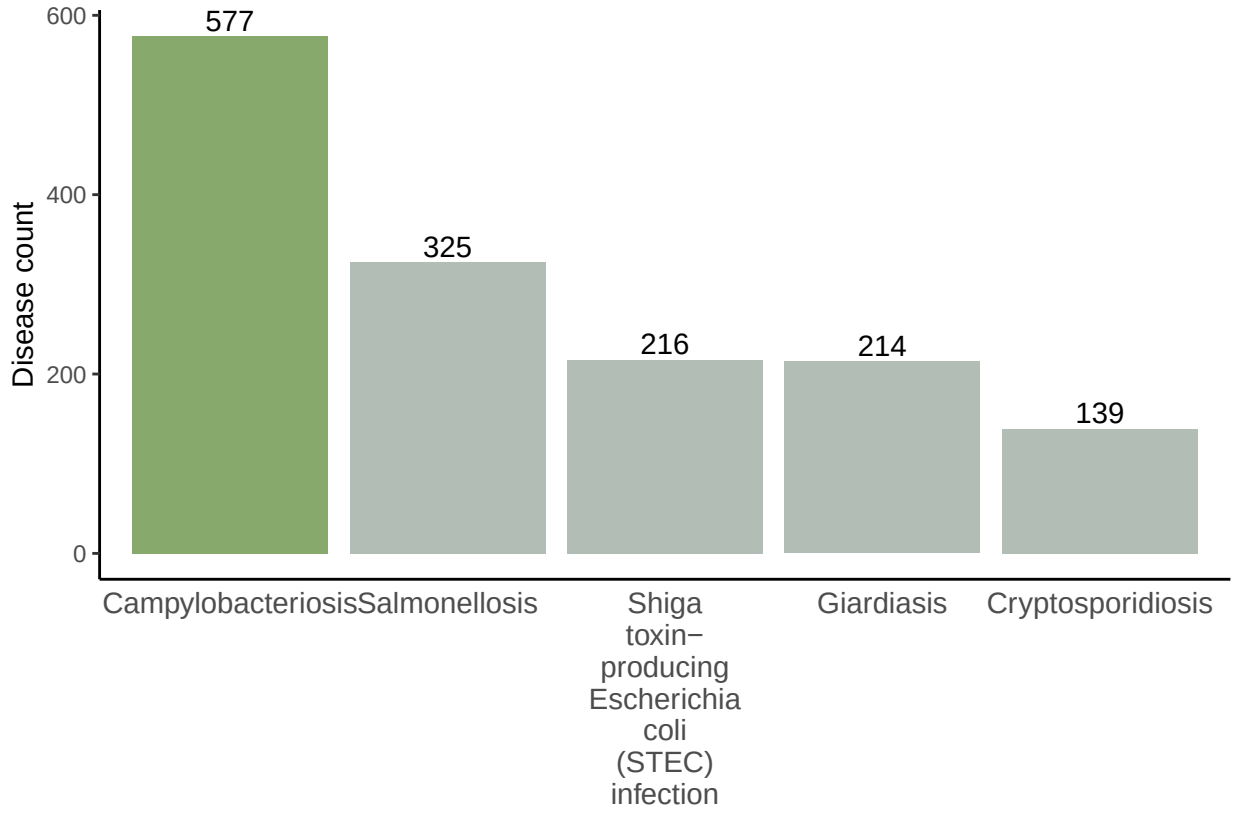
5 Diseases by type

5.1 Enteric (intestinal) diseases

Enteric diseases are infections commonly caused by micro-organisms that enter the body through the mouth through contaminated food or water, contact with animals or their environments, or contact with the feces of another infected human. For more information about enteric diseases, see the CDC website.

5.1.1 The top 5 enteric diseases, 2021

Diseases highlighted in green indicate those diseases that were also in the top 5 confirmed cases across all reportable communicable diseases in Utah.



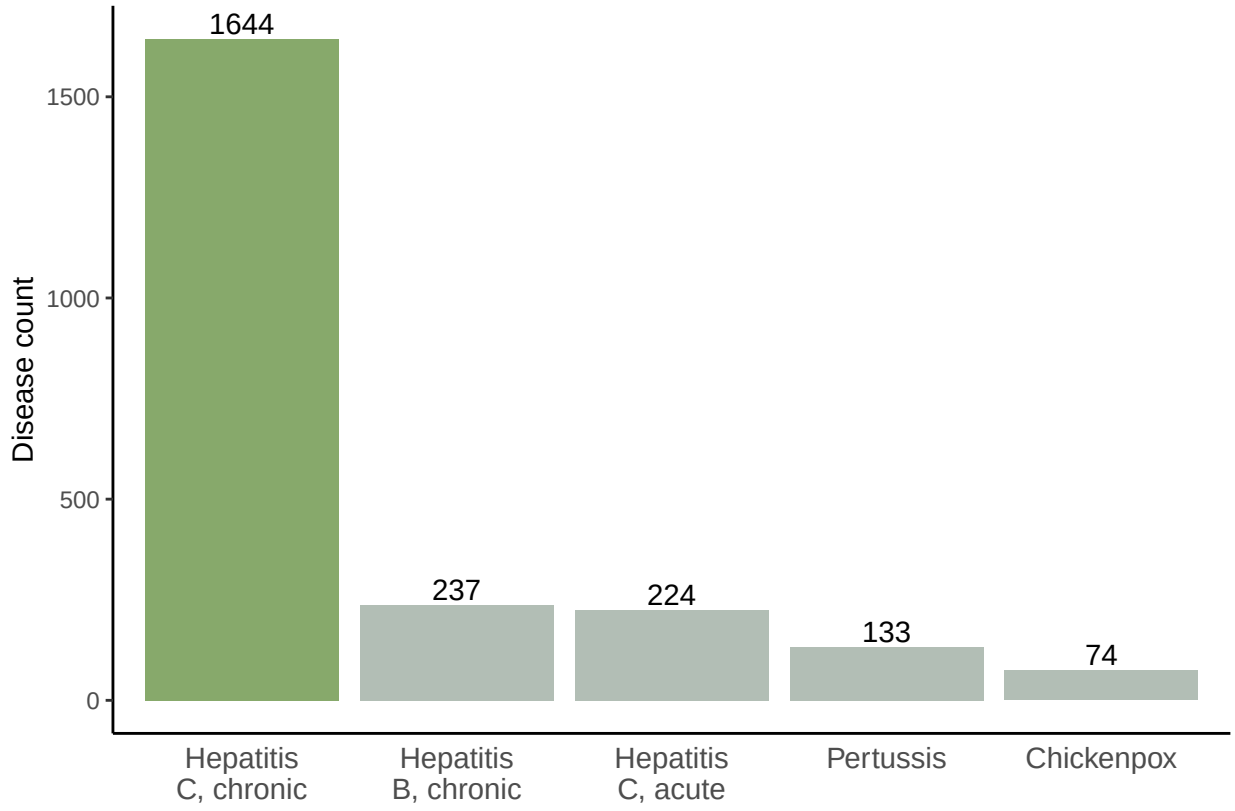
Utah Department of Health & Human Services

5.2 Vaccine-preventable diseases & viral hepatitis

Vaccine-preventable diseases (VPD) are infectious diseases that can be prevented by vaccines. For more information on VPDs, see the CDC webpage. Hepatitis is inflammation of the liver and is often caused by a virus. For more information, see the CDC webpage for viral hepatitis.

5.2.1 The top 5 VPDs/hepatitis infections, 2021

Diseases highlighted in green indicate those diseases that were also in the top 5 confirmed cases across all reportable communicable diseases in Utah.



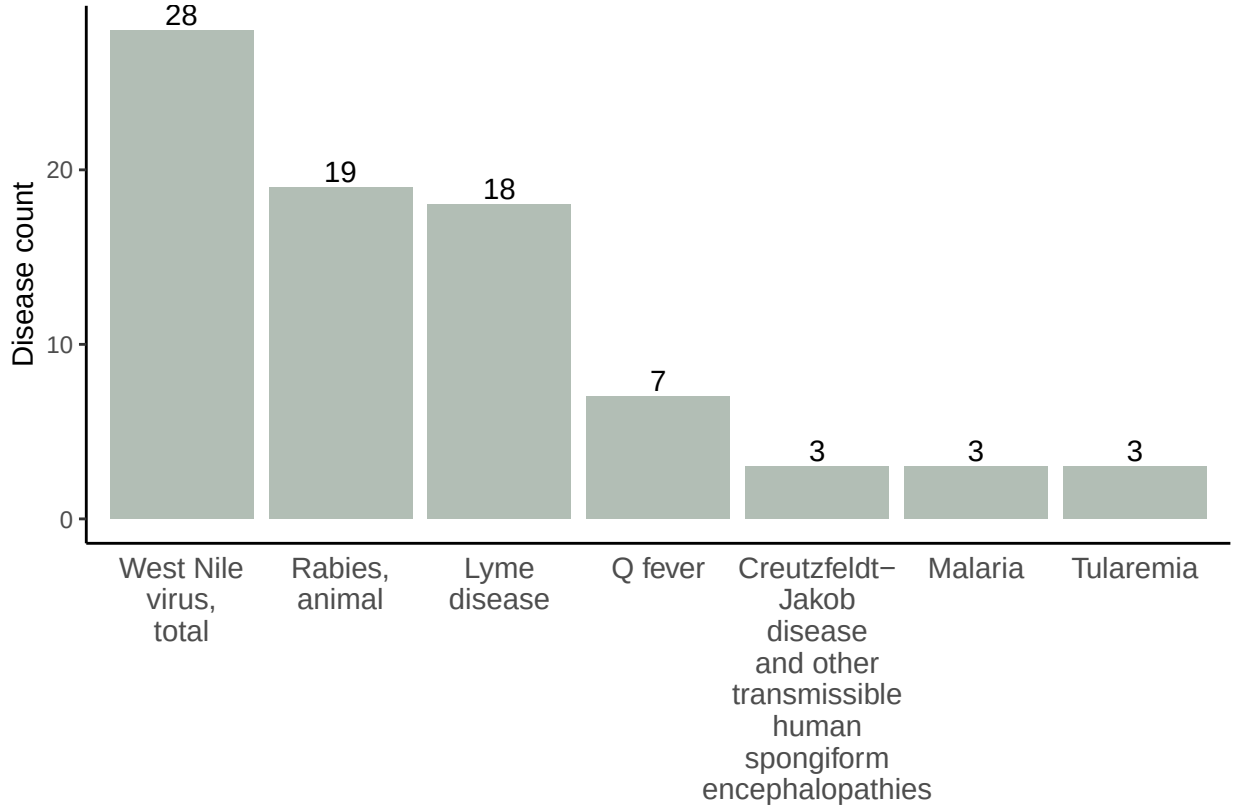
Utah Department of Health & Human Services

5.3 Zoonotic diseases

Zoonotic diseases are caused by infectious organisms (bacteria, viruses, parasites) spread to humans from animals, often through vectors such as ticks and mosquitoes. More information can be found on the CDC zoonotic webpage.

5.3.1 The top 5 zoonotic diseases, 2021

Diseases highlighted in green indicate those diseases that were also in the top 5 confirmed cases across all reportable communicable diseases in Utah.



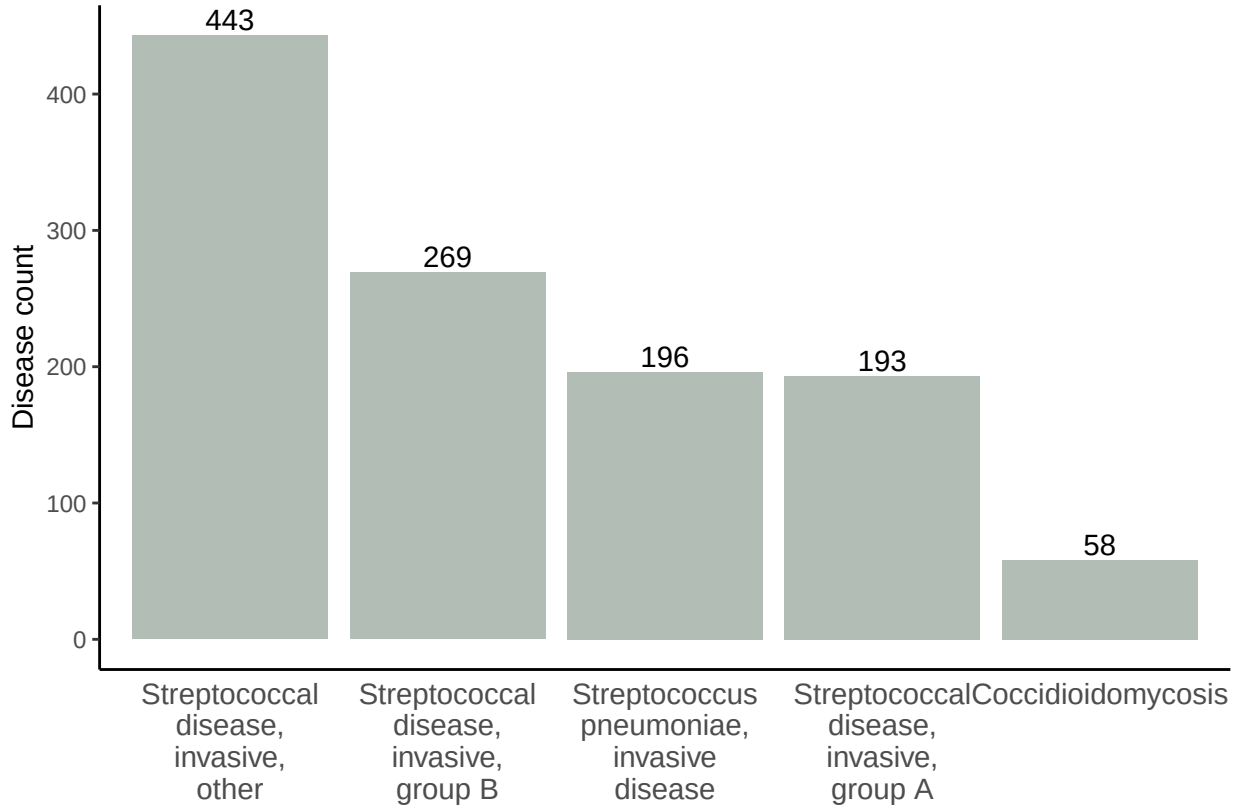
Utah Department of Health & Human Services

5.4 Invasive diseases and general reportable diseases

Invasive diseases are those in which the infectious agents (eg. bacteria) infect parts of the body normally free from germs, such as the bloodstream or cerebrospinal fluid. For more information, see the CDC webpage

5.4.1 The top 5 invasive and other diseases, 2021

Diseases highlighted in green indicate those diseases that were also in the top 5 confirmed cases across all reportable communicable diseases in Utah.



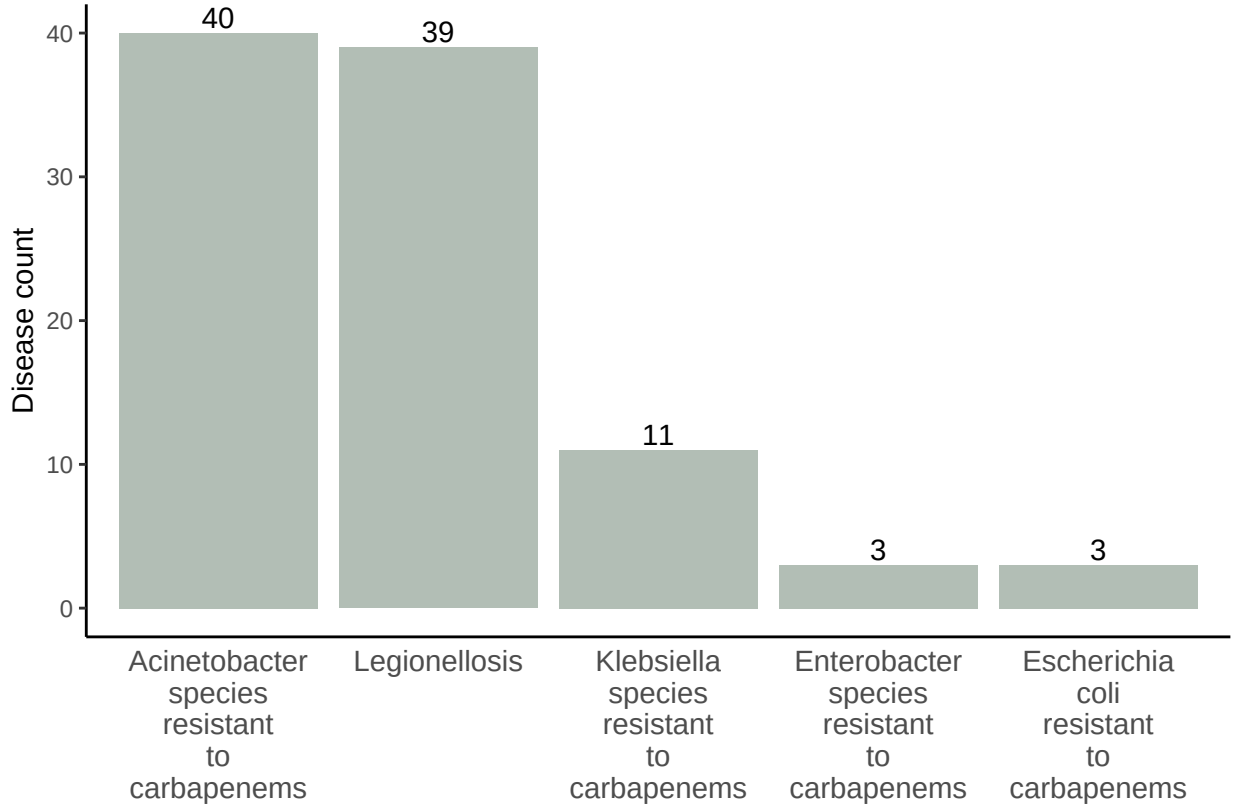
Utah Department of Health & Human Services

5.5 Healthcare-associated infections

Healthcare-associated infections (HAIs) include illnesses such as central line-associated bloodstream infections, catheter-associated urinary tract infections, and ventilator-associated pneumonia. Infections may also occur at surgical sites. The DHHS works with healthcare facilities to monitor and prevent these infections and improve patient safety.

5.5.1 The top 5 healthcare-associated infections, 2021

Diseases highlighted in green indicate those diseases that were also in the top 5 confirmed cases across all reportable communicable diseases in Utah[9].



[9]Includes community-acquired and healthcare-associated cases of legionellosis.

Utah Department of Health & Human Services

5.6 Sexually transmitted diseases

Sexually transmitted diseases (STDs) are very common and are passed from one person to another through sexual activity including vaginal, oral, and anal sex.

5.6.1 The top 5 sexually transmitted diseases of 2021

Diseases highlighted in green indicate those diseases that were also in the top 5 reported cases across all reportable communicable diseases in Utah.